



# Presentation for Sino-U.S. Workshop

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## **GEF/WB ASSISTED CHINA RENEWABLE ENERGY DEVELOPMENT PROJECT**

Project Management Office(PMO)

November 3, 1999 · Xi' an



## **GEF/WB ASSISTED**

# **CHINA RENEWABLE ENERGY DEVELOPMENT PROJECT**

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### **--Implementation period:**

- \* Five years

### **--World Bank and GEF financing:**

- \* World Bank Loan: US\$ 100 million
- \* GEF grant: US\$ 35 million

### **--Subcomponents of the project:**

- \* A. Windfarm Development Component
- \* B. Solar PV Market Development Component
- \* C. Technology Improvement Program

## **A. Windfarm Development Component (1)**

### **-- Investment**

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**Windfarm Companies (subsidiaries of SP and provincial/municipal power companies) will install 190 MW of windfarms at five sites:**

- \* Huitingxile, Inner Mongolia (100 MW)*
- \* Zhangbei, Hebei Province (50 MW)*
- \* Pingtan, Fujian Province (20 MW)*
- \* Nanhui, Shanghai Municipality (6 MW)*
- \* Chongming Island, Shanghai Municipality (14 MW)*



## A. Windfarm Development Component (2) -- Institutional Strengthening

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GEF-assisted TA and capacity building would be provided to staff of SP, the Windfarm Companies, and others to overcome barriers to windfarm development in the following areas

- \* *Private Sector Development of Windfarms in China*
- \* *Collection, Analysis, and Dissemination of Performance Data for Windfarms*
- \* *Financial Management and Organizational Structure Assistance*
- \* *Engineering, Construction Management, and O&M Management Services*
- \* *Capacity Building*



## **B. Solar PV Market Development Component (1)**

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- \* Providing direct grants to PV system companies
- \* Market Development Program
- \* Strengthening institutional capacity for product quality assurance and project implementation



## **B. Solar PV Market Development Component (2)**

### **--Direct grant**

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- ✧ 17 Pre-selected PV companies
- ✧ Eligible PV products
- ✧ Typical PV system configurations
- ✧ Technical Specification
- ✧ Target markets



## **B. Solar PV Market Development Component (3)**

### **--Investment (Continues)**

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**The direct grant would assist companies to:**

- (a) improve PV product quality;
- (b) improve warranties and after-sales service;
- (c) strengthen business capabilities; and
- (d) increase marketing efforts.

***\*Competition among companies would be encouraged to reduce system costs and improve service***



## **B. Solar PV Market Development Component (4)**

### **-- Institutional Strengthening**

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- \* capacity building for product quality assurance
  - establishing national PV testing and certification centers;
  - establishing national PV component and system standards;
  - improving quality control procedures of PV equipment suppliers.
- \* project implementation and management
  - project monitoring
  - project valuation.





## **C. Technology Improvement Program (1)**

### **--Investment**

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- \* Competitive Matching Grants**
- \* Quick Response Matching Grants**
- \* Production Investment Projects  
Assisted by Loans**



## **C. Technology Improvement Program (2)**

### **--Institutional strengthening**

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- \* Awareness Building and Program Support Activities**
- \* Program Management Support**